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the MEAT-TYPE HOG

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the MEAT-TYPE HOG

Too fat . . . Does that fit your hogs? Are you still raising fat hogs? If so, you are hurting the hog market by producing pork that neither you nor other consumers want.

Who suffers most when the market isn't supplied with lean, meaty hams and pork loins? Not the retailer—he can sell other kinds of meat. Not the consumer—he can buy those other meats. The one who pays for these lost sales is the hog farmer.

The meat-type hog is thickly muscled, long, and lean. Compared with the fat hog, more of the live weight of the meat-type goes into the lean pork that consumers demand, and less goes into fat and lard.

Characteristics typical of the meat-type hog are largely controlled by the pig's inheritance. Thus, breeding for meatiness will result in meatier hogs.

Recognizing a Meat-Type Hog

A meat-type hog that weighs 200 to 230 pounds measures about 44 inches from a line between the base of its ears to the root of its tail. You can measure your hogs easily and quickly with a 44-inch stick.

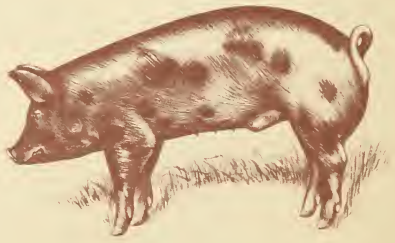
A meat-type hog that weighs 200 to 215 pounds has an average backfat thickness of no more than 1.65 inches. One that weighs 216 to 230 pounds will have an average of no more than 1.7 inches.

Measure backfat thickness with a metal-rule or a leanmeter. The average backfat thickness on live hogs can be determined by probing at three points:

- At the first rib, which is directly above and 1 inch behind the front of the front leg.
- At the last rib, which is in the middle of the back.
- At the last lumbar vertebra, which is directly above the point of the rear flank.

For further details on how to measure backfat thickness, ask your county agricultural extension agent.

The meat-type hog, when ready for market, is long, trim, and well muscled. It has little excess fat on



PN-2502

Are your hogs meat type . . .

PN–2503

. . . Or the old fashioned fat kind?

jowl, back, belly, or lower ham. The hams and shoulders are wider than the back, and the back is well rounded. When sold, hogs fitting this description will yield over 55 percent of their carcass weight in trimmed hams, loins, picnics, and Boston butts.

In contrast, fat hogs usually are short. Their backs are wider than the hams and shoulders, and a thick layer of fat extends to the edges making the backs nearly flat. In addition, fat hogs generally show a depression at the base of the tail. Their carcasses generally average less than 47 percent in yield of lean cuts.

Some hogs which are long bodied, trim, and relatively thin may be mistaken for meat-type hogs. These "counterfeit" hogs are not thickly muscled and therefore yield lower amounts of lean meat. They lack muscular fullness in the shoulders and hams and are narrow over the top of the back. The lack of adequate muscling in the ham causes them to stand with their hind feet close together. Don't be fooled by this fatless and meatless type.

Raising Meat-Type Hogs

Meat-type strains are developed by carefully selecting breeding stock for traits known to be associated with meatiness. Combine this selection with good feeding and management practices.

Although some breeds generally are considered to yield more lean meat than others, you can develop meat-type hogs within any breed by careful selection.

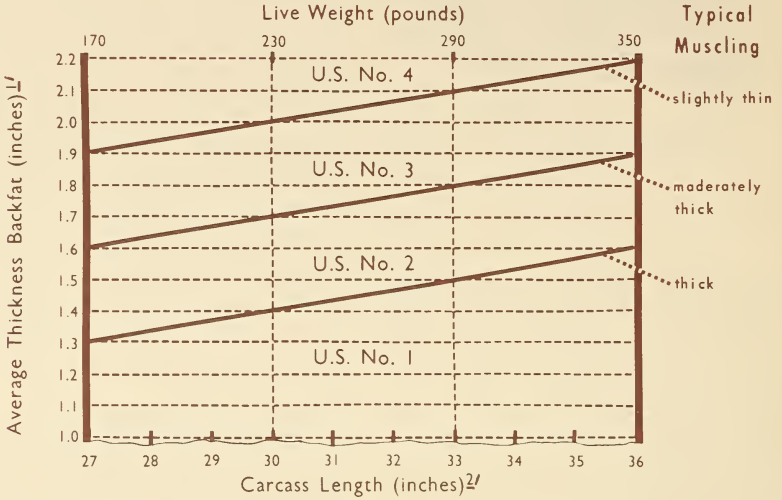
Performance records will help you select stock that is prolific, fast growing, and efficient in converting feed into pork.

Aim to raise eight or more pigs per litter. Ear notch litters and individual pigs at birth so they are easy to identify when later comparing animals for potential use as breeders.

Select boar pigs from large litters—ones that are fast growing and are efficient converters of feed. Measure their backfat and compare them for other meat-type characteristics before choosing your new herd sire.

Measure backfat thickness on all animals at 175 to 200 pounds. Keep and use these records when selecting animals for replacement. Whenever possible, pigs exceeding 1.4 inches in backfat thickness at these weights should not be saved for breeding. Remember, however, that a barrow at 175 to 200 pounds generally will have 0.3 inch more backfat than a littermate boar at the same weight. Use a boar with less backfat than you want his offspring to have. Otherwise, his offspring will be too fat.

RELATIONSHIP BETWEEN AVERAGE THICKNESS OF BACKFAT, WEIGHT OR CARCASS LENGTH, AND GRADE FOR BARROWS AND GILTS WITH MUSCLING TYPICAL OF THEIR DEGREE OF FATNESS.



1/ An average of three measurements including the skin made opposite the first and last ribs and the last lumbar vertebra. It also reflects adjustment, as appropriate, to compensate for variations - from - normal fat distribution.

2/ Carcass length is measured from the anterior point of the aitch bone to the anterior edge of the first rib.

Also use for breeding purposes long-bodied hogs that are heavily muscled through the hams, loins, and shoulders and are trim in the jowl. Avoid short, chuffy, heavy-jowled hogs that are too fat and poorly muscled. Boars and gilts saved for breeding should have at least 12 well-developed teats.

Join a meat-type certification program conducted by a breed association or your State swine improvement association. Get reports of carcass certification on hogs you market when they are available, and use these reports to help you select better breeding stock.

For more detailed information and advice, consult your county agricultural extension agent, breed association, State or local swine grower's association, swine testing station, or the National Pork Producers Council.

PN–2504

Learn how the meat type (*left*) compares with the fat hog (*right*).

Managing Your Herd

Sound management practices will result in a healthy herd and profitable hog production. To insure a healthy herd, follow sanitation practices regularly, and use a routine vaccination and parasite control program. In addition, make sure that new breeding stock is free of disease before introducing it into your herd. To help keep your herd healthy, always provide proper housing.

Value of Backfat Measurements in Breeding Meat-Type Hogs

A breeding experiment at the USDA Agricultural Research Center, Beltsville, Md., demonstrates the value of collecting and using backfat measurements in selective breeding for meat-type hogs.

Three lines have been developed within each of the Duroc and Yorkshire breeds—a high-fat line, a low-fat line, and an unselected control line. The aim of the experiment was to determine (1) how selection based primarily on backfat thickness affects carcass desirability and other economic traits, and (2) how stock possessing the desired quality of product might best be used for improving the efficiency of commercial meat-type hog production. Selection of breeding animals in the high- and low-fat lines was, in each case, based on a pig's backfat thickness at a live weight of about 175 pounds.

Selection in the Duroc breed has been carried through fifteen generations. The results show that backfat thickness increased from 1.49 to 2.55 inches in the high-fat line and decreased from 1.49 to 0.96 inch in the low-fat line.

Along with these changes in backfat thickness, there have been marked changes in carcass composition. When slaughtered at 210 pounds, fifteenth generation low-fat pigs excelled high-fat pigs by 20.8 pounds or 28 percent in yield of lean cuts; by 2.4 square inches or 95 percent in loin eye muscle area. The low-fat pigs also had 27.4 pounds or 48 percent less fat cuts.

There has been no significant change in growth rate when selecting for either high or low fatness. Yet, feed requirements per unit weight gain have been considerably higher in high-fat than low-fat pigs.

Similar though somewhat smaller differences have been observed between high- and low-fat Yorkshire pigs.

Information on backfat thickness combined with other economically important traits should offer excellent opportunities for producing meatier hogs and increasing the efficiency of swine production generally.

Management of Baby Pigs

- Notch ears for identifying individual pigs and clip needle teeth on the first day after birth.
- Prevent anemia by iron injections at 3 to 5 days unless another iron source is provided.
- Transfer pigs to a foster mother before they are 4 days old, if necessary.
- Consult your veterinarian for advice on control of scours.
- Start creep feeding when pigs are 2 weeks old.
- Castrate pigs raised for the market during the first 3 weeks.
- Wean pigs at 4 to 6 weeks depending on their weight and general condition.

Reproduction

Gilts and sows:

- Breed gilts when they are close to 8 months old and weigh near 250 pounds.
- Increase daily feed intake for both gilts and sow to approximately 6 pounds 1 to 2 weeks before breeding.
- Mate gilts and sows on the first day of estrus. A second mating on the following day is recommended.
- Hand or individual mating is recommended over pen mating.
- Decrease feed intake to approximately 4 pounds during the gestation period.
- Breed sows at the first estrus after weaning their pigs . . . enabling production of 2 litters a year.
- Check females at 3-week intervals after breeding and rebreed if they show signs of estrus.

Boars:

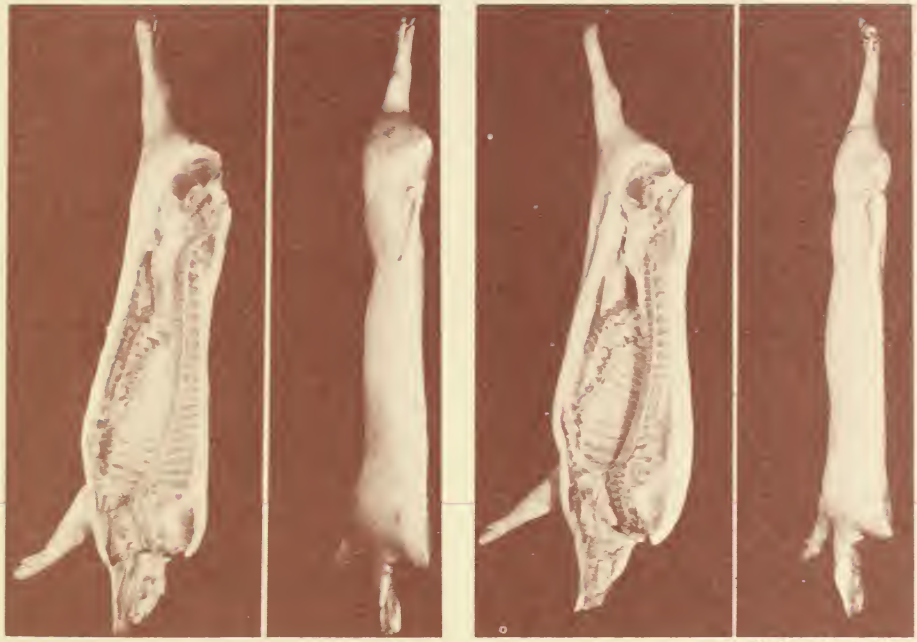
- Mate boars when they are close to 8 months old.
- Do not mate boars more than 15 to 20 times during a 3-week period.

Feeding

Balanced rations are essential not only for the production of meaty, heavy-muscled hogs, but also for the economical production of pork. Feeding hogs poorly balanced, inadequate rations may affect rate of gain, efficiency of feed conversion, and carcass composition. Farm grains—corn, wheat, barley, sorghum, and oats—may serve as the basic ingredients in the ration; however, these grains must be supplemented with protein and mineral mixtures.

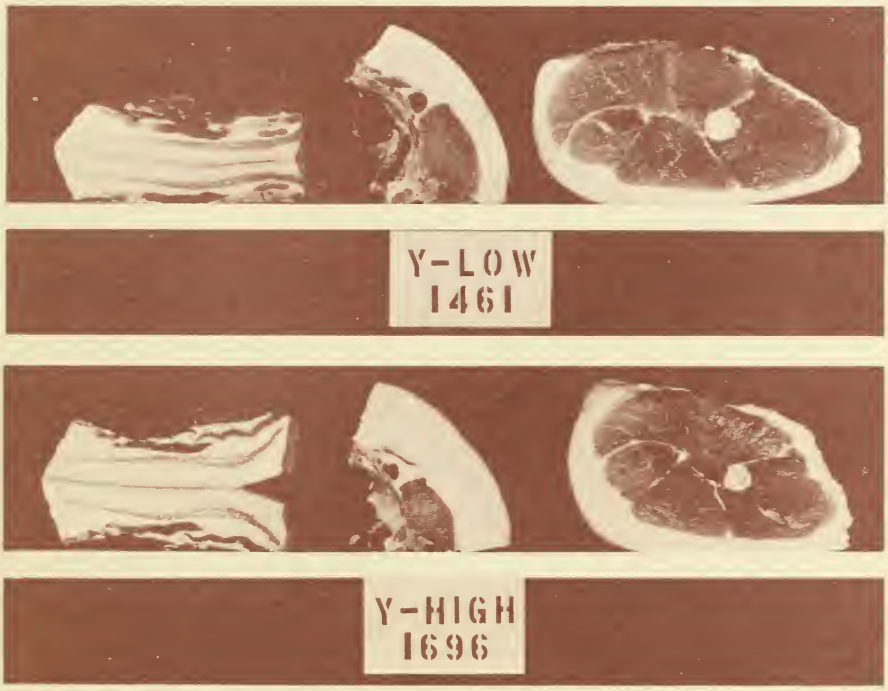
When fed balanced rations, meat-type hogs should weigh 200 to 220 pounds at 5 months of age on not more than 330 pounds of feed per 100 pounds of gain. Even meat-type hogs will carry too much fat if they are fed to heavier weights.

The recommended protein levels for production of meat-type hogs are: weaning to 35 pounds, 18 percent; 35 pounds to market weight, 16 percent. The recommended protein level for boars and gestating sows is 14 to 16 percent and total feed per day 4 to 7 pounds, depending on the condition of the animal. This feeding program must



PN–2505, PN–2506

Compare the carcasses of a meat type (*left*) and a fat hog (*right*).



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A meat-type hog produces lean, meaty pork loins, bacon and hams (*top*).

be accompanied by a sound management program. It is your feeding and management program that determines your success in raising meat-type hogs.

Marketing Meat-Type Hogs

If possible, select a market where prices paid reflect value differences associated with grade. Market your hogs before they get too fat—while they will still grade either U.S. No. 1 or U.S. No. 2. Sort your hogs for grade and weight before sending them to market, and ship them in uniform groups.

Whenever possible, arrange to receive reports on the carcass grade and cutout of your hogs, those that died during shipment, and those which showed signs of pale, soft, and watery pork, generally referred to as the PSE condition. This is an undesirable condition which lowers palatibility of the lean. Use this information in your breeding program.

Multiple farrowing helps you market regularly all year round. A steady supply of high-quality hogs strengthens and stabilizes prices.

The packer finds a better market for pork when he furnishes the retailer a steady supply—instead of a variable one. With a steady supply of pork, the retailer can advertise more effectively and increase sales.

If you are raising meat-type hogs and not selling them in a market that buys graded hogs, you may be missing out on deserved profits. Your meat-type hogs are worth more and when they are sold by grade, they should bring a premium. Meat-type hogs will grade as U.S. No. 1 or U.S. No. 2 when marketed at weights of 200 to 230 pounds. You can obtain a copy of Official United States Standards for Grades of Slaughter Barrows and Gilts from the Livestock Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C. 20250.

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